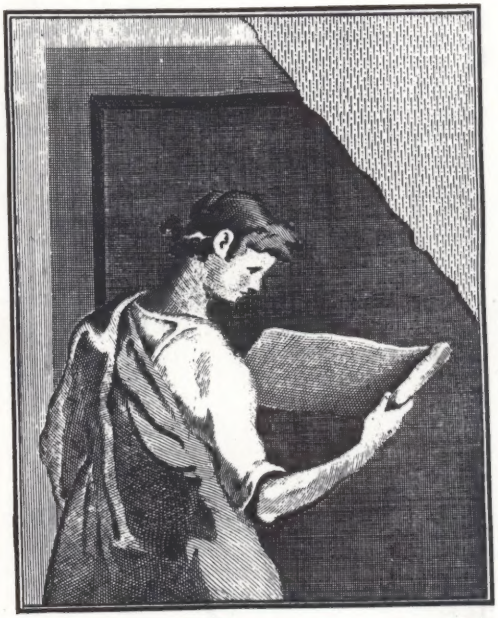
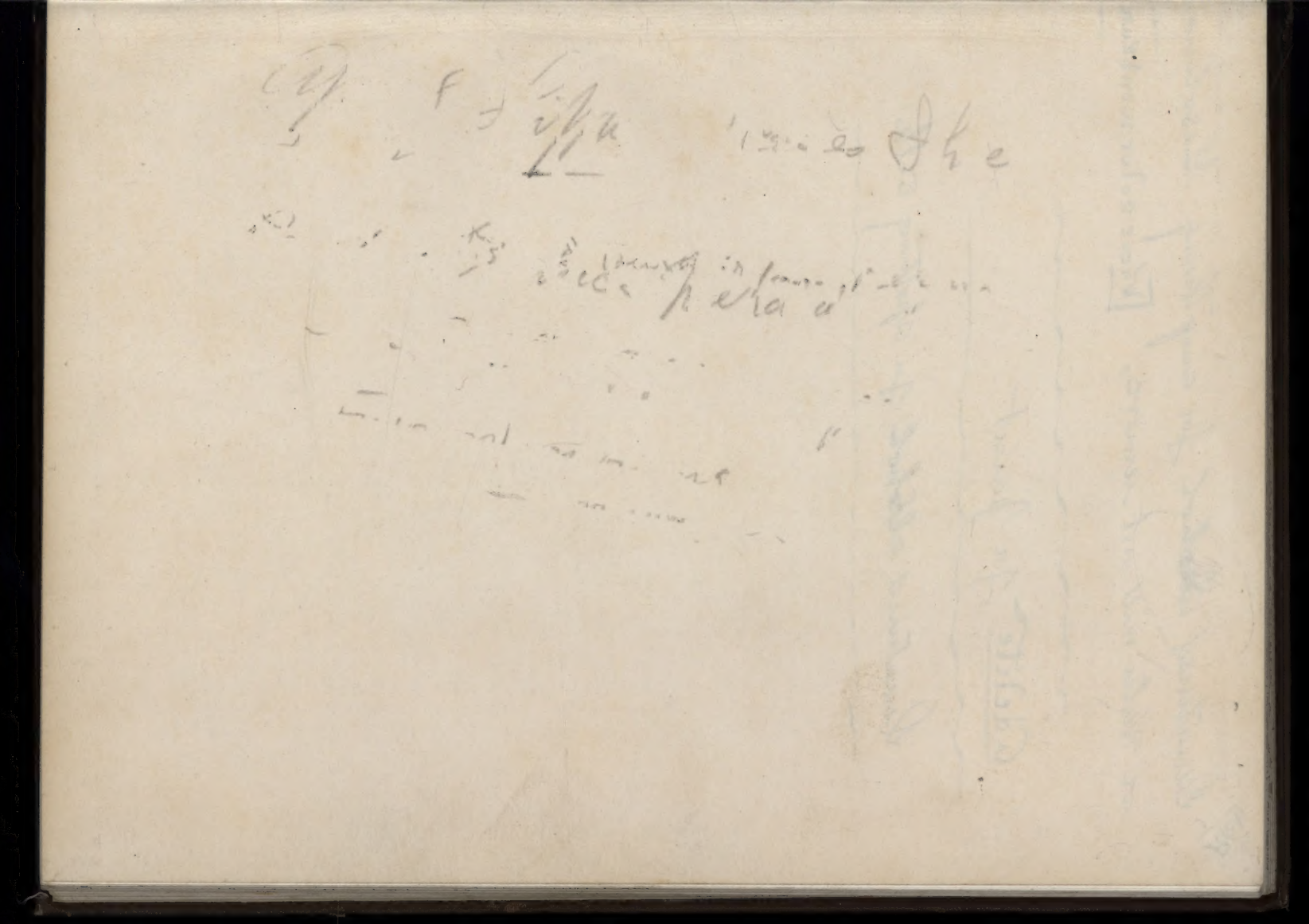
# THE SECRET and SCIENCE of FRENCH DRY CLEANING





Rtch

Denatured alcohol for anything Gasolene or Water will not remove, Where color wont Run

Adelite for paint

Denatured alcohol for spotting silk

# THE SECRET and SCIENCE of FRENCH DRY CLEANING

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REVISED EDITION

# The Secret and Science of French Dry Cleaning

BY

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## *Introduction*

THIS, the second edition of "The Secret and Science of French Dry Cleaning," embodies all the formulas and practical instructive methods of my first publication, in addition a comprehensive story of the origin and preparation of the different materials used in dry cleaning, also other information, essential to anyone desiring a reliable working knowledge of this important commercial science.

## *History of French Dry Cleaning*

NOT so many years ago, but that some of us can remember, a new method or science for the cleaning of certain fabrics, clothing, etc., was introduced in France by M. Judlin, about the year 1866.

This science was called French Dry Cleaning, the name 'Dry Cleaning' is rather puzzling to many not familiar with the process, and naturally so as the garments are immersed or dipped into the liquid, and to all appearances wetted the same as if dipped in water.

But wonderful to relate, the garments dipped in BENZINE, GASOLINE, or TURPENTINE, are not wet in the way water would soak the same material, for a beautiful party gown made of the very finest SILK, may be washed in petroleum benzine and will retain its shape in every way, while if immersed in water would instantly become a shapeless mass, and would also shrink the material. Accordion pleated retains its pleating in benzine but loses it in water.

There are two reasons for this, first, because most materials are soluble, that is, soak readily in water, and secondly, the fibers or strands of thread are changed

in shape by coming in contact with the water, that is they become limp and in many cases are altered in size. It also loses its delicate finish or gloss.

Benzine and other similar liquids have absolutely no effect in shrinking of SILK or WOOL, herein lies the difference in French Dry Cleaning and Wet Cleaning.

The liquids used in the Dry Cleaning process, are: petroleum, benzine, benzol, carbon tetrachloride, turpentine, ether, chloroform, acetone, and bisulphide of carbon.

THE DRY CLEANING PROCESS is both simple and rapid and much of the benzine can be rinsed, so as to be used over and over again, until entirely gone.

Most stains in garments are due to dirt being held in materials by greasy substances collected during the wearing of the clothes. The Dry Cleaning Method simply dissolves or releases the grease, naturally the dirt then readily falls off and the dirt stain disappears.

The most delicate colors are not impaired in dry cleaning, and handsomely trimmed dresses can be easily cleaned without removing any part of the trimmings.

The same holds good, regarding men's clothing, and not even the padding in the coat is shifted or wadded.

The articles which submit readily to the Dry Cleaning process, include nearly all wearing apparel, draperies and furnishings, also fancy spreads, etc. The following is a partial list:

Women's evening gowns, costumes, tea gowns, blouses, jackets, dust coats, gloves, furs, laces, parasols, hats and fancy shoes.

Children's capes, jackets, frocks, suits, etc.

Men's suits, overcoats, fancy vests, ties, hats, gloves, etc. Also such household furnishings as curtains, draperies, cushion covers, carpets, rugs, etc.

## *Caution*

THE dangers of benzine and other dry cleaning solvents: — In handling these inflammable materials even with turpentine, extreme care should be used never to permit naked lights or a stove in the room, even the electric light should be in a double air tight cover. Therefore great precaution should be taken to avoid these dangers.

## *Turpentine: its Origin and Distillation*

ANOTHER well known liquid used in the process of dry cleaning, is TURPENTINE. The method of securing and making it is so interesting, we offer the following:

Originally, the name 'turpentine' was given to a resinous substance appearing on the surface of pine and similar trees, but of late years, this name has been used to distinguish the turpentine we are now familiar with from crude turpentine in its resinous state.

As in the case of petroleum, the crude turpentine possesses little or no commercial value and that principally medicinal.

Many people are familiar only with the word 'turpentine,' and probably never knew there were three varieties on the English market, viz: American, French, and Russian, each kind derived from a different tree.

The American turpentine is obtained mainly from two or three varieties of pine, largely, however, from the Swamp or Georgia pine, which is found extensively in North and South Carolina, Georgia and Alabama.

The process of securing the resin, is most interesting. When the winter seas-

on is on, (from November to March), all available help proceeds to the forests for the express purpose of collecting resin.

The first step is called "Boxing," that is, a cavity is cut into the side of the tree about twelve inches from the ground. These boxes hold about three pints, and not infrequently, one tree will be cut with three boxes; great care, however, is taken not to cut so deeply as to touch the heart of the tree, as that would eventually mean its death.

The upper portion of this cut or "box" as it is called, is always kept free from resin, and chipped from time to time so as to expose new surfaces of wood causing a freer flow of resin.

The sap or resin begins to flow about March, and collects in these cuts or "Boxes." That which collects on the sides is called, "Scrape," the other "Dip."

The first season's flow, called "Virgin Dip," is always collected separately. Care must also be taken to avoid getting any vegetable or dirt matter in the resin, as it materially effects the quality of the resin made from it.

Some of the crude resin is exported for use in making varnishes—the most, however, is treated locally for turpentine and resin.

The industry is indebted to Mr. J. C. Schuler for an improved method of rosin

extraction in which the trees are not cut into, but faced with earthenware cups, in which the resin is collected. This preserves the tree's life and insures a greater yield of resin, and there is no loss by dripping as in the "Box" method, and strange as it may seem the resin collected in this cup way yields about one-fifth more turpentine, also more rosin and both of a better grade.

The great waste and careless manner in which resin has been collected, up to within a few years, destroyed a vast number of trees and unless the Schuler or similar method is universally adopted, the trees producing turpentine will be entirely

destroyed or so small a number remain as to not nearly supply the demand.

The method of distillation is very crude and simple. The native resin is placed in a still into which passes a steam pipe from a boiler while another pipe passes out connected with a condenser; a man-hole on the top permits filling the still, while a large pipe at the bottom drains off the settled resin.

When the proper amount of resin has been placed in the still a fire is lighted and as the turpentine reaches a little above the boiling point of water, a current of steam from the boiler is sent in, the steam mingles with the turpentine and passes

into the condenser, when both are condensed.

When no more turpentine comes over the rosin left in the still is drained off into barrels and the still is ready for another similar operation.

Pure turpentine is obtained by further distillation. We mention here particularly, the French turpentine, a variety obtained from the Maritine pine, a native of Southwest France.

Science plays an important part in this district, trees are cut in February or March and the sap caused to flow into the vessels of earthenware placed at the foot of the trees. For five years in succession

the trees are tapped and then allowed to stand untouched for several years.

When a tree has become nearly exhausted, the final tapping is made, and a large yield of resin obtained, but the tree dies, and is cut down, and another planted in its place.

The French product is more carefully handled in its distillation, and is very superior to the American turpentine.

The Russian turpentine is obtained from the Scotch pine, the method employed in obtaining it differs from the American and French—its properties are slightly different, however.

Turpentine burns with a smoky flame and has a peculiar characteristic odor.

Turpentine mixes readily with ether, alcohol and benzine, but is insoluble, (does not mix) with water, and is very useful as a solvent for oils, fats and resins.

## *Petroleum and its Relation to Kerosene, Benzine, Gasoline and Naptha*

THE most valuable of Earth's riches are iron and petroleum.

We use petroleum products constantly in everyday life, year in and year out. Hardly one person in a hundred knows whence or how its by-products come or what petroleum is.

Kerosene, gasoline, benzine, naphtha, machine oil—of course, we all know what

they are, but of their relation to petroleum, we are not so familiar.

Petroleum is known by many names: mineral oil, rock oil, stove oil, coal oil and naphtha.

The word, 'petroleum,' is derived from the Greek language, meaning "rock oil."

Petroleum, (a coal oil), has no connection with coal, either in origin or in any other way. The name coal oil is a misnomer originated in England.

Before petroleum was generally known, oil was observed trickling down from seams of coal in English mines and

it was from this occurrence that the name, 'coal oil' was originated.

When petroleum is exposed to the atmosphere, evaporation and combination with oxygen gradually produces such formation as tar, pitch, wax and asphalt.

Petroleum varies greatly in character, always oily, sometimes very thin and watery, others thick and stringy. Its color ranges from a straw to a dirty brown, and odor decidely unpleasant.

The most important characteristic of petroleum is its habit of vaporizing or turning into gas when heated or exposed to the air. Natural gas is always found with petroleum.

In this volatility, depends the whole success of refining the crude petroleum. It possesses little or no commercial value except as a fuel.

The same property makes petroleum very dangerous to use near a fire or lighted lamp. For this reason it is very necessary to keep the oil in tight vessels to prevent evaporation to guard against explosion.

Petroleum is found to a greater or less degree in almost every country of the world, one of Nature's most widely distributed gifts to humanity.

Many theories have been advanced, relative to the sources of petroleum, but

the drill indicates that oil comes from porous rock formations, from the multitude of tiny space between the grains of rock itself, instead of from one big chamber as many imagine.

An oil field is a large area, the limits of which are determined by sinking test wells and a close study of rock formation. Generally within the field are several distinct areas or "pools," from which the large flow is obtained and it is most unusual to find oil in paying quantities in every part of the oil field.

Oil usually exists under pressure which is graphically illustrated in the

great flowing wells, some of them yielding thousands of barrels daily.

This pressure is largely due to imprisoned natural gas which generally is found in the oil fields.

The use and finding of petroleum dates back as early as two thousand years before Christ—asphalt like material being found in the embalming of mummies.

The first users of petroleum in America are unknown as the earliest white settlers in Pennsylvania found rudely constructed pits enclosing springs from which petroleum issued.

In early days, the Indians of Southern New York State found petroleum springs

and gave to petroleum the name of "Seneca Oil," by which it was known for over one hundred years. Then the salt makers found it in large quantities when digging salt wells—they made no use of the oil, however, and considered it a great nuisance.

Daniel Kier, a druggist, first commercialized petroleum by putting it up in small bottles and offered it as a cure-all.

In 1872, finding his medicine did not sell, he tried refining petroleum and finally succeeded in producing a mediocre illuminating oil. The first barrel brought seventy cents a gallon, while often it went to two dollars per gallon. Up to this

time, no wells had been drilled—the process of securing oil consisted simply in skimming the water off these oil lakes and springs.

In August, 1859, Edwin Drake and Billy Smith brought into existence the first oil ever drilled in the United States, and as a direct result, American methods and tools are now used the world over in drilling for oil.

When a well site has been located, the derrick or rig is set up for deep drilling. The derricks reach a height of seventy feet or more, the average height, however, is thirty or forty feet.

The first step in drilling is to put a drive pipe down through the soil to the bed rock, then the drill or bit starts the work. Drilling is a long process with much detail of watching and the use of emergency tools in case of accidents removing sand water, oil, etc.

In some instances wells have been drilled to over four thousand feet in depth.

The purification of petroleum was accomplished crudely many years before the modern process was perfected. The most important modern process consists essentially of two parts, first heating the oil in a still till it evaporizes just like boiling water, and then condensing this steam

or vapor. The gradually increasing heat, divides the petroleum into its different forms.

When the naphtha oils cease to appear, the first cut or division is made.

The second cut is illuminating oils and finally the heavier tar products.

The American refiner aims to produce as much kerosene and lubricating oil as possible, while in Russia, the resin is in great demand for fuel and nearly as valuable as other products.

The naphtha distillation can be divided in different grades, such as gasoline,

naphtha and benzine, in which the dyer and cleaner is particularly interested.

Some faint idea of the tremendous importance of the petroleum industry may be gained from the statement that, "Save for water and air, every possible necessity of a man's life may be supplied directly or indirectly through the use of petroleum products."

When naphtha is refined, these products are obtained: gasoline, benzine, and naphtha.

The first gasoline is very light and is used only for special purposes.

The other two products are sold indiscriminately, under the names of benzine, benzoline, and petroleum spirit.

Petroleum benzine is the most important liquid employed in dry cleaning.

The benzine from America and Borneo petroleum are the most largely used.

## *Borax: Its Origin and Usefulness*

BORAX, a mineral, was first discovered in the formation of crystals, on the shores of lakes, covering a large extent of country, in Ladak, Ceylon, Transylvania, Peru, Chili, and the United States.

There is also a crude material called 'Tincal,' found in Tebit, Asia, which is sent to Europe for purification, and which proves to be very satisfactory.

The first product found in the United States was discovered at Borax Lake, eighty miles north of San Francisco, California, in 1856, and later in 1864 at Clear Lake, Clear County, California, but foreign discoveries date back to 1774.

The largest production of borax in the world, is produced in the United States, found in the states of Nevada and California. The borax industry, in the United States, may be said to be the real beginning of borax.

Dr. John A. Veatch, who was boiling some of the water of Tuscan Springs, in Shasta County, had set the water aside to cool, when it happened to be

concentrated enough for the borax to crystallize, and having heard of the discoveries made by Dr. John A. Veatch, a Virginian, by the name of William Troup, began to look for borax, and in 1864 and 1871, cottonballs were found in different parts of Nevada. This cottonball, which is really a Borate of Lime, is boiled with water and Carbonate of Soda, the minerals changing, and the borax is produced.

At the time borax was selling at 39 cents per pound.

In 1872, Mr. F. M. Smith, a native of Richmond, Wisconsin, found borax in Nevada, and with his energy, and shrewd-

ness, formed a company, which has made him one of the leading capitalists of the West. This company also is the largest producer of borax in the world.

Borax is one of the most useful and satisfactory helps in French dry cleaning and Laundry work, that can be found, for the reason that it is perfectly harmless to the very finest of silk and wool, and as a cleanser, it dissolves fats and starches, and will not harm colored materials.

It may be used as a medicine, and also as a preventative against moths, vermin, waterbugs, etc.

## *To French Dry Clean Men's Clothes*

FIRST prepare the garment to be cleaned by turning all of the pockets inside out and give them a thorough brushing; then put same in a vessel large enough to hold the garment; then pour in sufficient gasoline to cover the article as though you were going to wash; adding to each gallon of gasoline used, one-half ounce of turpentine, one ounce of borax, and benzine soap, the size of an egg. Then cover the vessel tightly and let stand from twenty to

thirty minutes, allowing the garment to thoroughly soak, as you will find it much easier to clean.

Also, if possible, place the vessel in which you have the contents in a larger vessel filled about half full of hot water, so as to warm the solution while being soaked and also to keep it warm while cleaning. Be sure and not have the solution any warmer than what you can put your hands in to do the work.

Then proceed to clean as though you were washing, sousing the garment into the solution, afterwards rinsing if necessary in clean gasoline, wring out, and if possible, hang out doors to dry.

A very good vessel to do French Dry Cleaning in, for the housewife, milliner or dressmaker, who have a very small quantity to do at a time, is an ordinary cream can used by dairymen, about a five-gallon size. Why this is mentioned is for several reasons. First, because it is inexpensive and almost perfectly air tight. Second, that in cleaning one can use the plunger such as is used in washing. Therefore, saving the trouble of putting the hands into the solution, which is not very pleasant. Third, that it is a very easy matter to heat the solution, which is the most necessary and important part of dry cleaning, as it stands to reason that warm solution will do better work and give quicker results than cold solution.

## *The Still*

AFTER the process of cleaning has been finished, do not throw this solution away, but let it stand in the vessel until all the dirt has settled to the bottom. Then pour off the clean solution, or make a still by using an old tin pail perforated with very small holes in the bottom. First place in the bottom, the exact size of the pail, about half a dozen layers of cloth; put in on top of these two inches of sand, then about the same amount of charcoal, and on top of this, more sand, leaving but very little space to pour in the dirty solution. By this method one can use the solution over and over again until all is used.

## *To French Dry Clean Spots*

THIS kind of work, the professional dry cleaner calls "spotting," and is performed after the garment has been cleaned and thoroughly dried, in which you will find spots that are still left on the garment, which did not come off when cleaning, and in this kind of work a great deal of good judgment has to be used.

First, try and brush the spot off. If not successful, take a little warm water and naphtha soap on the corner of a piece of cotton cloth, and then wash as before

in the solution mentioned for the first cleaning until the circle has entirely disappeared.

In some cases of spotting, one may prevent this circle by first spreading a little French chalk around the spot to be cleaned, and using a blotter under the spot for a pad; or try chloroform to remove the circle. In many cases, these remedies will save a great deal of labor.

CAUTION—All garments to be French dry cleaned should be thoroughly dried after being wet with water.

## *French Dry Cleaning Fluid*

MAKE a soap jelly of ¼ bar of Naphtha or Castile Soap, with distilled soft water, and add ¼ ounce of Honey, ¼ pint of Alcohol, ¼ ounce of Gum Camphor, ¼ ounce of Borax, ¼ ounce of Turpentine, ¼ ounce of Salt Petre, ½ ounce of Sulphuric Ether. Mix together thoroughly and then add one pint of boiling hot water. The water used for this fluid should be the very cleanest rain water you can possibly obtain.

Now after mixing all of the contents together, put it in a dark glass bottle or jug, for future use. This fluid contains no alkali, therefore, it is not injurious to the very finest of Silk, Wool or Straw, and one can use this fluid for spots after the garment has been cleaned, or in cleaning spots on garments that are only soiled and that do not require the gasoline wash.

## *Distinction and Nature of Fabrics*

THERE are two kinds of fabrics: one of animal fibre and the other vegetable. The animal fibre includes, Silk, Wool, Fur, and Feathers, while the vegetable fibre includes Linen and Cotton.

Linen and Cotton are particularly hard, and will withstand the effects of strong solution, that could not under any circumstances, be applied on Silk, Wool, Furs, etc. For this reason, there is not nearly the work in cleaning these

materials. Therefore, reduced acids and alkalies may be applied.

But in cleaning animal fibre, one has to be more particular for the reason that it is more delicate, and only solutions that are free from acids and alkalies should be used. In many instances, greatly reduced acids when properly applied, will give good results in removing spots that cannot be cleaned otherwise. And it also must be remembered and practiced that a stain is much easier to remove immediately after an accident, than it is several days afterward.

## *To French Dry Clean Women's Garments*

WOMEN'S garments are dry cleaned with a few exceptions, in the same manner as cleaning men's clothes, by washing in gasoline, adding to each gallon used, one-half ounce Turpentine, one ounce of Borax, and Benzine Soap, the size of an egg; but in cleaning very light colored garments, the turpentine should be omitted, as it has a tendency to make the garment a little yellow.

There are several difficulties which one will come in contact with in French dry cleaning women's garments.

Therefore, if unsuccessful, one must not condemn this process of cleaning, but trace back and find what the failure was due to: perhaps in having secured an inferior grade of gasoline, or an inferior grade of soap, and possibly that the garment was not all wool, and in this case, the cleaning has to be done over a second time as gasoline will not affect the cotton mixtures if very dirty.

Therefore, where a garment has to be dry cleaned that has cotton, lace or linen trimmings, one will have to sponge off same with warm water and Naphtha soap, being very careful not to spatter the rest of the garment. Always be sure to remove the dress shields before cleaning or the gasoline will ruin them.

## *To French Dry Clean Spots on Women's Garments*

THE work of spotting on women's garments differs somewhat from men's clothing, because the material is so much lighter in weight, that it will not withstand the rubbing. Also as a rule, lighter in color. Therefore great care must be taken in spotting. But as explained in the spotting of men's clothes, a great many of these spots may be brushed off if the garment is thoroughly dried.

And for the spots that are very difficult, use the warm water and Naphtha soap or the French dry cleaning fluid, already described.

## *Caution*

Never use gasoline near a flame or fire of any kind, as it is very "explosive" and "dangerous."

## *To French Dry Clean Plumes and Feathers*

PLUMES and feathers may be dry cleaned in warm gasoline, adding only the Benzine soap. It makes no difference what the color may be, you will find this method the most satisfactory, although one may wash same in warm water and Castile soap making plenty of suds. Afterwards rinse in clean warm water but the only objection in the water cleaning, is that the plumes have to be curled afterwards, whereas in gasoline it does not affect the curl.

## *To French Dry Clean Children's Dresses*

DRY cleaning of children's garments is the same as dry cleaning women's garments, only that you will find more cotton mixtures. For as a rule, the material used for these is much cheaper. But if the materials used for these small dresses were thoroughly shrunk before being made, then the most satisfactory way for cleaning them is soap and water, with the exceptions of plaids that are not fast colors, and these have to be French dry cleaned.

## *To French Dry Clean Children's Coats*

SUCH garments should in all cases be French dry cleaned. Cleaning in the same manner as men's clothing, for the reason, in the make of these garments there is a canvas and padding, and if otherwise cleaned, especially if washed in water, you can never press them back to their original shape.

## *To French Dry Clean Silk Waists*

PLAIN silk waists, with no trimmings, may be dry cleaned the same as for cleaning other women's garments, but when there are trimmings such as lace or chiffon, then these parts are to be sponged off with warm water and Naphtha soap, and, as already stated, being very careful not to spatter the water on the silk.

But in dry cleaning colored silks or satins, be very careful in using water as the color is liable to run and ruin the garments.

Solid colored silks and satins, if very much soiled, may be washed in luke warm water and Naphtha soap making plenty of suds, then rinsed in clean water, afterwards allowing the water to gradually drip out. Never try to wring out silk or satin.

## *To French Dry Clean Velvet*

VELVET should never be cleaned otherwise than with gasoline. The same as for silk or satin. After it is thoroughly dried take a warm flat iron, turn bottom side up, place a wet piece of cotton cloth on the iron and when the steam begins to appear put the wrong side of the velvet on to the cloth so as the steam will go through the velvet. At the same time brushing the nap with a soft brush. Velvet ribbons and trimmings cleaned and steamed in this manner, can be restored like new.

## *To French Dry Clean Gloves*

IRST take a quart fruit jar and fill about half full of gasoline. Then add about a teaspoonful of Benzine soap and also the same quantity of turpentine. Place the gloves to be cleaned in this solution, and let stand for at least twenty minutes. Be sure and put the cover on tightly so as to prevent evaporation. And, as already stated, in cleaning other articles, place the jar in a pan or pail containing hot water, so as to warm the solution.

Always purchase the very best grade of gasoline, turpentine and soap, and you will have the very best results.

After the gloves have been thoroughly soaked, shake the jar once or twice, and then open the cover to let the gas escape. Repeat this three or four times, after which you can continue shaking until cleaned. Then rinse in clean gasoline alone, and hang out of doors to dry. If one is in a special hurry they may be dried in the same empty jar, allowing the jar to stand in the warm water with the cover removed.

## *To French Dry Clean Light Glace Kid Gloves*

IF VERY little soiled, make a paste of flour and gasoline and apply with a soft clean cloth, covering every part of the gloves. Then let them dry and rub off clean, afterwards applying powdered French chalk.

Be sure and never use turpentine in the solution for cleaning light colored leather.

A paste made of magnesia and cream of tartar, may be applied with a soft cloth in the cleaning of White Suede gloves, after thoroughly dried, rub off, and apply equal parts of Fuller's Earth and powdered alum.

## *To French Dry Clean Hats*

SOFT or stiff felt hats may be cleaned in the same kind of solution as for cleaning men's clothes, using a soft brush to scour the hat in the cleaning.

Straw hats, such as Sailors or Panamas should be cleaned by first going over the hat very lightly with warm water and Naphtha soap. Be very careful not to

have the hat soaking wet. Place the hat in the sun to dry, afterwards rub with slices of lemon. Do not touch the ribbon or any of the trimmings with the lemon, for it contains acid and is very injurious. Be sure and rub plenty of the lemon on the straw. Then let dry and rub off with a soft cloth, afterwards applying powdered French chalk to put on a glossy finish.

Or after washing the straw lightly apply equal parts of oxalic acid and water, and in all cases do not touch any ribbons or trimmings.

Another method of cleaning the very finest of straw, is to make a paste of

Flowers of Sulphur and lemon juice. Apply the paste on the soiled straw with a soft brush, rubbing it well. Then place in the sun to dry, afterwards brush off thoroughly.

## *To French Dry Clean Linen and Cotton*

MANY professional dry cleaners will tell you all sorts of ways that they clean these different kinds of fabrics. But if the garment is much soiled, there is but one way, that is, to wash the garment in warm water and Naphtha soap, making an abundance of suds so as to clean them without scrubbing. Afterwards, rinse in clean warm water and let the contents drip out until dry. For in many cases, especially in the make of cotton and linens now-

adays, if you were to wring them out dry, there would be wrinkles in them that one could never iron out.

But where a garment of cotton or linen, is not very much soiled, wash them in warm gasoline, adding only the Benzine soap. Afterwards, rinse in clean gasoline. Do not wring them out, but let drip gradually, and one will find that there is but little pressing to be done after this process of cleaning.

All cotton and linen fabrics should be thoroughly shrunk before being made into any garment, as it will save a great deal of labor and trouble.

## *To French Dry Clean Furs*

FURS are of animal fibre, therefore of the same nature as silk or wool, and may be cleaned in the same manner, omitting the turpentine and borax. Use just clean warm gasoline.

To revive furs after being stored, lay them on a padded board or table and whip the fur with a round stick until it becomes fluffy; or, heat a quantity of corn meal and sprinkle on the fur, rubbing with a piece of flannel. Shake out the surplus corn meal.

## *To French Dry Clean Portieres and Curtains*

ORTIERES and curtains, if solid colors, may be washed in warm water and Naphtha soap, but generally being figured, and containing two or more colors, they can only be dry cleaned in warm gasoline and Benzine soap to prevent the colors from running. It must be remembered that fabrics of this nature require a great deal more soaking and washing than all wool fabrics, therefore, if after being washed, the

article does not appear to be clean, repeat the washing and you will get satisfactory results.

This process of cleaning may also be applied to such articles as sofa covers, fancy pillow covers, etc.

CAUTION—Never use gasoline near a flame or fire of any kind, as it is very explosive and dangerous.

## *French Dry Cleaning, Miscellaneous*

NECKTIES, artificial hat trimmings, such as flowers, etc., ribbons, parasols, fans, chiffons, gold and silver laces, all should be dry cleaned in the same manner as described for dry cleaning gloves.

## *To French Dry Clean Paint Stains on Silk or Wool*

YOU will find this the most difficult of all spots, therefore great care as well as patience must be used. If one ever accidentally gets paint on a garment it will be well to apply gasoline or turpentine at once.

If the paint has been on for several days, put that portion of the garment containing the spot into gasoline and soak,

occasionally rubbing the spot with a soft brush. Chloroform or alcohol may be applied on the finest fabrics, or soak them in warm lard, afterwards washing in warm gasoline.

Equal parts of gasoline, turpentine, cocoanut oil, glycerine, ether, and ammonia, thoroughly mixed and kept for future use, will prove one of the best agents for the removal of paint spots.

If, after trying the different methods already mentioned, and not having been successful, place a piece of cotton cloth on an ironing board underneath the spot, then saturate the spot with turpentine; afterwards, place another piece

of cotton cloth on the spot and with a warm, not hot, iron press over the spot until the paint becomes moistened, and as quickly as possible, rub same with equal parts of gasoline and turpentine. If necessary to repeat, do so, being very careful not to scorch the garment.

## *To French Dry Clean Ink Stains on Silk and Wool*

AS THE great poet says, "A drop of ink will make a million think." But if immediately cared for, may be cleaned by soaking in fresh milk or rubbing with a slice of lemon.

An old ink stain will diminish, if not entirely disappear, if the spot is soaked for several hours in turpentine, occasionally rubbing between the hands. Or, dissolve one-half ounce of oxalic acid in

a half pint of warm water and apply only on the spot, repeating the application frequently. In all occasions of spot cleaning do not forget to have a pad of cloth underneath the spot being cleaned.

If in cleaning colored goods, the color should be affected, the same may be restored with ammonia or chloroform.

## *French Dry Clean Ink Stains on Linen and Cotton*

ON THESE vegetable fabrics stronger solutions may be used, such as cream of tartar, salts of lemon, oxalic acid, citric acid, turpentine, vinegar, and sour milk, but in using the acids one must dilute the same with warm water and use while warm as it has better effect, occasionally pouring in a few drops of the acid, making the solution stronger and stronger, just so as

to not burn the fabric, until the spot has disappeared.

But in cleaning small articles, soak the spot in hot grease, afterwards washing in boiling hot water, making plenty of suds.

## *To French Dry Clean Tea and Coffee Stains on Silk and Wool*

RUB glycerine into the spot with the fingers, let stand for a while, then wash in warm water, afterwards sprinkle on a layer of salt and if possible, lay in the sun to dry. Or, apply equal parts of alcohol and chloroform, adding one-half tablespoon of tartaric acid to each one-half pint of this solution.

## *To French Dry Clean Tea and Coffee Stains on Linen and Cotton*

IF THESE stains are immediately attended to, they may be removed by stretching that portion containing the spot over a bowl or pan and pour boiling hot water through the fabric.

Where a stain of this kind has been neglected for several days it will be necessary to make the solution of one tablespoonful of glycerine, same amount of

alcohol, milk, and chloroform, adding the yolk of an egg, and rub the contents thoroughly into the stain, afterwards washing out the solution with warm water and Naphtha soap, making plenty of suds.

## *Stains on Silk and Wool and their Solvents*

MACHINE OIL STAINS.—Make a paste of French chalk and water. Rub this thoroughly into the spot, and let stand until paste has become perfectly dry, then brush off the contents and apply alcohol or chloroform very lightly, using a blotter underneath the spot which you are cleaning.

TAR STAINS.—Rub on lard until softened, then wash in soap suds, using Naphtha soap, or gasoline.

WAX STAINS.—First place the stain between two pieces of brown paper, and go over with a warm, not hot, iron and immediately afterwards, rub gently with alcohol, turpentine or gasoline.

IRON RUST STAINS.—Dissolve one ounce of oxalic acid in one pint of hot water, and apply warm, then wash out the acid in plenty of soap suds. Or, cover the spot with a layer of salt and lemon juice, and place in the sun, occasionally applying fresh juice and salt until the stain has been removed.

MILDEW STAINS.—Mix the juice of a raw tomato with the juice of a lemon, then add one-half ounce of salt, one-half

ounce of borax, one-half ounce of starch, and mix these with a soap jelly made from Naphtha soap and hot water, and apply while warm, laying in the sun and afterwards washing in soap suds.

BEER AND LEMONADE STAINS.—Dissolve in one quart of boiling hot water, eight ounces of soap bark, afterwards strain, then add a wine glass full of ammonia, a tablespoonful of salt, two ounces sulphuric ether, one-half ounce tartaric acid, and a wine glass full of alcohol, shake well and apply with a soft woolen rag or brush. In all cases when using acids, do not forget to rinse as soon as possible in clear warm water.

Also when cleaning very delicate fabrics, reduce the quantity of acid, and if you do not find it effective, gradually increase the amount to what is stated for general cleaning.

All of these little things must be observed for the reason that fabrics of silk and wool that are made nowadays do not contain the pure material, and it is advisable to try such treatments on samples of the same goods, as the experiment will often prove of great value.

## *To French Dry Clean Perspiration Stains*

THIS kind of a stain may be removed if the garment is of a solid color, with Castile soap and soft water, afterwards, if possible, lay in the sun to dry.

Peroxide of Hydrogen may be applied very gently on white silk or satin. But on colored material use equal parts of chloroform and alcohol.

It is very necessary that this kind of a stain should be cared for as soon as possible, for the reason that perspiration contains more or less acid, and if allowed to remain on the garment for any length of time, it is impossible to remove it.

**For Taking out Tea, Coffee and Wine Stains.**

Use about one-half pint of dissolved Soap Chips and one-half ounce of common table salt, mix thoroughly in solution, use on the part affected. After it is thoroughly rubbed in, let it stand over night, then wash out and let it dry in the sunlight.

Should the spots after this application fail to entirely disappear, repeat the above operation.

## *To French Dry Clean Grass Stains on Silk and Wool*

RUB equal parts of molasses and vaseline on the spot, and leave for about one half hour, then wash in clear soft water.

Salts of lemon, or spirits of alcohol may also be applied with very satisfactory results. Or, make a solution of one tablespoonful of Tartaric acid to ten teaspoonfuls of warm water, and apply hot, afterwards wash in Naphtha soap and water.

## *French Dry Clean Fruit and Wine Stains on Linen and Cotton*

FIRST, stretch that portion of the goods containing the spot over a bowl or basin, and pour boiling hot water through the stained part, adding one-fourth pint of ammonia to each gallon of water used.

For old stains, use boiling hot milk, or use the clear solution obtained from 4 ounces of chloride of lime, and 8 ounces

of sal soda into a quart of boiling hot water.

Salts of lemon, or diluted oxalic acid may be also applied, but must be rinsed in boiling water as soon as possible, otherwise it will rot the fabric.

## *To French Dry Clean Fruit and Wine Stains on Silk or Wool*

THIS kind of stain contains more or less acid, therefore should be cared for as soon as possible, otherwise it is almost impossible to remove same.

Equal parts of ammonia and alcohol may be applied with satisfactory results.

Or, the mixture of 4 ounces of chloride of lime, and 8 ounces of sal soda put into a quart of boiling hot water, and

let stand until the contents settle, afterwards pour off the clear solution. This mixture should be very carefully applied only on the spot, afterwards dip the spot into clear water, and then in ammonia, then sprinkle on a little salt and place in the sun to dry.

## *To French Dry Clean Blood Stains*

IN removing these stains from silk and wool, use only cold soft water and Naphtha soap.

For linen and cotton, saturate the spot with kerosene oil, and let stand for a few minutes, afterwards wash in cold water. Or, just moisten the spot with water, and put on plenty of starch, afterwards wash in cold water.

## *Sponging and Shrinking Light Weight Colored Goods*

IN shrinking certain fabrics, such as panamas, poplins, nun's veiling, voile, wool taffeta, and broadcloth—great care must be taken, for the reason that they will not stand the water that heavier materials will, therefore should be shrunk by laying as much of the goods on the table as possible, always having the right side inside, and folded as when delivered

from the store. Then take a piece of cotton cloth and dampen same, wringing out as much water as possible. Lay this on the goods, and with a hot iron press upon the dampened cotton until almost perfectly dry, then remove the cotton, and press the goods with only a warm iron.

## *Sponging and Shrinking Wool Dress Goods*

IN sponging and shrinking dress goods, such as colored serges, cheviots, broadcloths, and novelties, take a length of cotton cloth, and soak in luke warm water, wring out but very little, then stretch the goods to be shrunk on a table, always having the right side of the goods inside, and laying the wet cotton on the top of the goods, start folding both together in the shape of a

board, or roll of cloth, allowing same to remain folded in this manner for at least six hours. Afterwards remove the goods and hang up to dry, then press same with a warm, not hot, iron.

## *Sponging and Shrinking Linens, Cottons and Mohairs*

TAKE and fold fabrics of this description nice and smooth so they will not wrinkle, and lay them in a tub of luke warm water, allowing to remain until thoroughly soaked. Then take them out, and without wringing, hang up, allowing to drip gradually, until almost dry, afterwards press with a warm iron.

Be sure and never wring out goods of this kind as you will make wrinkles that can never be pressed out, while at the same time they lose more or less of their lustre.

## *Contents*

Scorched Burnt Places use Peroxide